



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,918	03/31/2004	Frederick Thomas David Goldie	34-126	5701
23117	7590	03/25/2005	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			POKER, JENNIFER A	
			ART UNIT	PAPER NUMBER
			2832	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,918

Applicant(s)

GOLDIE, FREDERICK THOMAS
DAVID

Examiner

Jennifer A. Poker

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-9 is/are allowed.
- 6) ☒ Claim(s) 10-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/29/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

General Status

1. This is a second action on the merits of application filed March 31, 2004. Newly added claims 7-15 of amendment received November 29, 2004 are pending and are being examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10, 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,498,555 to Sakata in view of International Publication Number WO 99/06310 to Hill, et al.

Regarding claims 10 and 11, Sakata discloses a coil conductor comprising a plurality of layers of turns (6-9) (figure 1) wherein the turns are connected by an end portion of one turn (example turn 6) to an end portion of another adjacent turn (example turn 7).

Sakata discloses the claimed invention except for stating that the conductor coil is an insulated electrical conductor.

Hill, et al, discloses a helically wound high voltage coil 10 including four coil layers 1 1-14. A wire winding of the prior art typically uses wire, which has insulation such as enamel or polymer (not

Art Unit: 2832

shown) on it for turn-to-turn insulation and utilizes paper insulation 15 between layers of turns in 20 the coil to provide adequate insulation between the helically wound layers of insulated wire.

One skilled in the art at the time the invention was made would have found it obvious to combine the teachings of Sakata with the teachings of Hill, et al, and provide a coil with a plurality of turns on adjacent layers wherein the coil has an insulative coating for the purposes of turn-to-turn insulation and further providing additional insulation between layers of turns to provide adequate insulation between wound layers of insulated wire. (page 4, lines 14-20).

Regarding the preamble's recitation of an MRI shim coil, the recitation has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951). Sakata in view of Hill disclose the structural limitations, which comprise the body of the claimed invention.

Regarding claims 13 and 14, the method steps are necessitated by the device structure as it is disclosed by Sakata in view of Hill, et al.

4. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,498,555 to Sakata in view of International Publication Number WO 99/06310 to Hill, et al, further in view of U.S. Patent Number 6,181,232 to Kitamura.

Regarding claim 12, Sakata in view of Hill, et al, disclose the claimed invention except for the specific use of glass cloth as the insulating material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a suitable insulating material for the layers between the coil conductors, since it has been held to be within the general skill of a

Art Unit: 2832

worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. However, an additional reference is incorporated to illustrate that glass cloth has been used in prior inventions.

Kitamura discloses in the prior art, a coil element comprising a plurality of coil layers (4, 5) wherein the coils have a plurality of turns (figure 5); insulating layers (6a, 6b) separating the coil layers (4, 5) (figure 5). Kitamura further discloses that the insulating layers (6a, 6b) may be glass (column 5, line 2).

One skilled in the art at the time the invention was made would have found it obvious to combine the teachings of Sakata, Hill, et al, and Kitamura and incorporate a glass insulation layer to add an additional insulation between the winding layers of the coil conductor.

Regarding claim 15, the method steps are necessitated by the device structure as it is disclosed by Sakata in view of Hill, et al, and further in view of Kitamura.

Allowable Subject Matter

5. Claims 7-9 allowed.

6. The following is a statement of reasons for the indication of allowable subject matter: no prior art of record or combination thereof teaches an MRI apparatus having an MRI shim coil which comprises a plurality of layers with a plurality of turns “wherein the shim coil is wound in two or more sections, each section of the MRI shim coil incorporating some or all of the plurality of layers, but only some of the turns in each layer.”

Closest related art located did not include the shim coil having two or more sections, which comprised a plurality of layers but only SOME of the turns in each layer.

Response to Arguments

7. Applicant's arguments with respect to claims 10-15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed November 29, 2004 have been fully considered but they are not persuasive. Applicant makes specific arguments relating to the functionality of the shim coils. In response to these arguments that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, Regarding the preamble's recitation of an MRI shim coil, the recitation has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951). Sakata in view of Hill disclose the structural limitations, which comprise the body of the claimed invention.

Further arguments are addressed below:

- (a) objections to the specification and abstract are withdrawn;
- (b) objection to claim 4 is withdrawn;
- (c) claim rejection under 35 U.S.C. 112, second paragraph, is withdrawn.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

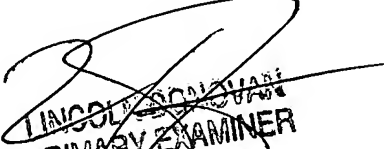
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Poker whose telephone number is 571-272-1997. The examiner can normally be reached on 4:30-3:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2832

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jap
March 18, 2005


LINCOLN SCHUCHMAN
PRIMARY EXAMINER
GROUP 2100